Contents

Session One - Allergens (Chairman: Jack Pepys)

Allergenic Extracts
Robert E. Esch 3

Toward a Definition of the 'Complete' Spectrum and Rank Order of Importance of the Allergens from the House Dust Mite *Dermatophagoides Pteronyssinus*
B.A. Baldo, S.A. Ford and E.R. Tovey 13

The Cloning of a Mite (*Dermatophagoides Pteronyssinus*) Recombinant Protein that Shares IgE-binding Determinants with a 14-15 kD Component of Mite Extracts
E.R. Tovey, G.S. Cobon, M.C. Johnson and B.A. Baldo 33

Fungal Allergens: Their Characterization with Special Reference to *Aspergillus Fumigatus*
Joan L. Longbottom 43

Discussion 57

Session Two - Molecular Biology (Chairman: James Watson)

Toward a Total Human Immune Response Fingerprint: The Allergy Model
D.G. Marsh, P. Zwollo and A.A. Ansari 65

The Interaction of Human IgE with Class-specific Fc-receptors
Birgit A. Helm 83

Chimaeric Antibodies
Marianne Brüggemann 93

The Location of Effector Function Sites on Immunoglobulin G
Alexander R. Duncan 105

Structure-Function Relationships for IgG Subclasses
F. Shakib 113

Discussion 123

Session Three - Cloning of Allergens (Chairman: James Watson)

Cloning and Sequencing Vespid Venom Allergens: Sequence Similarity and Antigenic Cross-Reactivity of Hornet Antigen 5 and Tobacco Leaf Protein
Te Piao King 129

Analysis and Expression of cDNA Clones Coding for House Dust Mite Allergens
W.R. Thomas, K.Y. Chua, G.A. Stewart, C.R. Doyle, K.J. Turner, R.J. Simpson and R.J. Dilworth 139

Molecular and Immunological Approaches to Epitopes of Selected Airborne Pollen Allergens
D.G.Klapper, S. Woods, J. Olson, R. Esch, J.J. Smith and T. Rafnar 149

The Rye-grass Pollen Allergen, *Lol p I*
R.B. Knox, M.B. Singh, T. Hough and P. Theerakulpisut 161

Identification of cDNA Clones Representing Group I Pollen Allergens from Kentucky Bluegrass
T.W. Hatton, A.K.M. Ekramoddoullah, F.T. Kisil, A.H. Sehon and R.D. Hill 173

Discussion 177

Session Four - Immunoassay of Antibodies Using Labelled Allergens (Chairman: Terry Merrett)

Use of Antigen Binding Radioimmunoassays to Measure Class and Subclass Specific Antibody to Food Antigens in Atopic Dermatitis Patients
S. Rowntree, T.A.E. Platts-Mills and E.B. Mitchell 181

Assessment of *In Vitro* Testing to Diagnose IgE Mediated Allergic Disease
L. Perelmutter 185

Liquid-phase *In Vitro* Allergen-specific IgE Assay with *In Situ* Immobilization
A. Said El Shami and Olusola Alaba 191

Evaluation of Non-specific IgE Binding: Comparison of Two *In Vitro* Allergen-specific IgE Assays
Olusola Alaba and A. Said El Shami 203

Discussion 215

Session Five - Paediatric Allergy and Epidemiology (Chairman: Sami Bahna)

Development of Pediatric Food Allergy
Sami L. Bahna 223

Does the Heisenberg Principle Apply to the Predictive Value of IgE in Atopic Allergy?
Robert N. Hamburger 231

A Prospective Study of Allergy in High-risk Children
M.L. Burr, T.G. Merrett, J. Merrett, B.K. Butland and F.G. Miskelly 239

Allergen Exposure in Infancy
J.O. Warner and J.A. Price 257

Discussion 263

Session Six - Allergens (Chairman: Jack Pepys)

Allergens and Allergy: Factors Involved in Allergy to Low Molecular Weight Chemicals
J. Pepys 271

Monoclonal Antibodies as Structural Probes for Mite, Cat and Cockroach Allergens
Martin D. Chapman 281

An Allergen and Antigenic Mapping Analysis of a Major Mite Allergen, *Der p I*
G.A. Stewart, W.R. Thomas, H.Y. Chua, K.J. Turner and H.M. Geysen 297

IgE and Viruses
Sam T. Donta 313

Discussion 319

Session Seven - Mast Cells and Allergy (Chairman: Jack Pepys)

Induction of Immunological Tolerance by Monomethoxypolyethylene Glycol (mPEG) Conjugates of Xenogeneic Immunoglobulins
Alec H. Sehon 327

Tryptase, an Allergy Attack Enzyme from Human Mast Cells
S.C. Alter and L.B. Schwartz 335

Interleukin-4 Induced IgE Formation
Hans L. Spiegelberg 349

Human Natural Killer Cells and Their Fc Epsilon Receptors in the Regulation of IgE and Other Immunoglobulin Isotypes
A. Saxon and H. Kimata 359

Discussion 373

Session Eight - Computer Assisted Medical Decision Making
(Chairman: Said El Shami)

Building Computer Aids for Medical Decisions: A Review and Discussion of the Techniques Available
J. Wyatt 381

Predicting Allergen Involvement with Symptoms
C. Pantin 397

Clinical Usage of Computers in Allergy Diagnosis
Jack Pavuk 417

The Computer as Your Confidante
J.O. Warner and S. Shribman 425

Discussion 429

Closing Remarks (Jack Pepys) 431